

Remarks

Claims 1-32 are pending. Claims 16-32 are withdrawn pursuant to the Examiner's previous restriction requirement. Claims 1, 4-6, 8, 10 and 13-15 are amended to more particularly point out and distinctly claim Applicants' invention. Claims 1-15 are currently examined.

The Examiner rejected Claims 1, 4, 7-8 and 13-15 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,857,914 ("Thrower"). With respect to Claim 1, the Examiner states:

Regarding claim 1, Thrower discloses an information input apparatus whose key arrangement is variable (Figure I), comprising:

a key display section for displaying elements of a key image of a matrix shape (Figure 1, 3);

a key input section for receiving information of a corresponding key at a predetermined location of the key image displayed on the key display section (Figure 1, 1); and

an input controller (Figure 1, elements 5-11) for generating an image of predetermined key arrangement selected among a plurality of key images in which numeric keys are shift-arranged so that there is no crossing in a neighboring numeral traffic line (Figures 2a-2d and column 3, lines 1-8), providing the generated image to the key display section (Figures 2a-2d and column 2, line 63 to column 3, line 19.), and converting the information inputted through the key input section into an actual key value based on the predetermined key arrangement (Column 3, lines 9-28).

Applicants respectfully submit that the Examiner is mistaken. Claim 1 recites a set of key arrangement images in which the numeric keys are elementarily shift-arranged such that there is no crossing in a neighboring traffic line and in which the numeric keys bear a specific relation to the non-numeric keys:

1. An information input apparatus whose key arrangement is variable, comprising:

a key display section for displaying elements of a key image of a matrix shape;

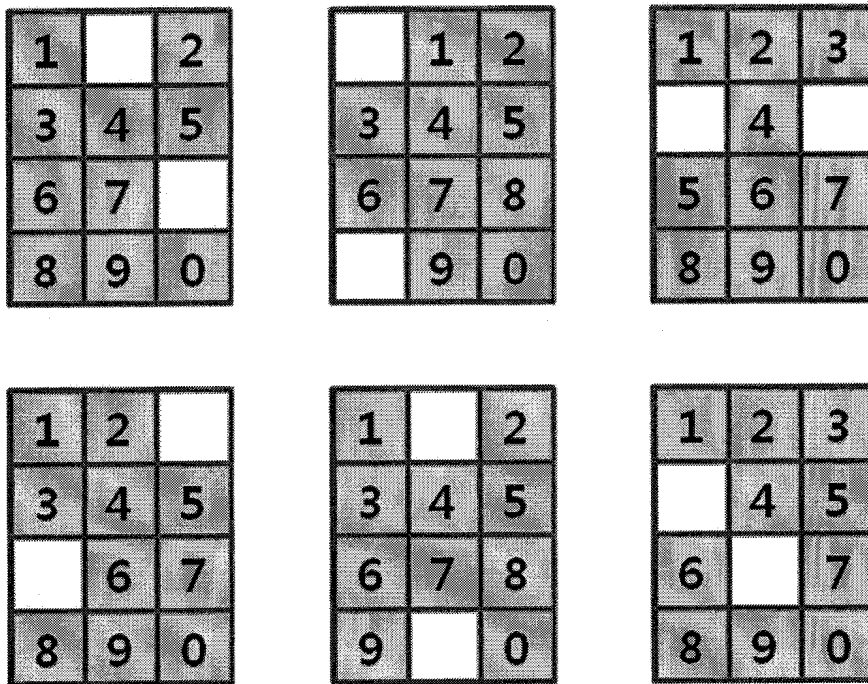
a key input section for receiving information of a corresponding key at a predetermined location of the key image displayed on the key display section; and

an input controller for generating an image of predetermined key arrangement selected among a plurality of key images in which numeric keys are elementarily shift-arranged so that there is no crossing in a neighboring numeral traffic line, at least one of the key images having numeric keys 1 and 2 and a non-numeric key all positioned at the top of the image, providing the generated image to the key display section, and converting the information inputted through the key input section into an actual key value based on the predetermined key arrangement.

(emphasis added)

Such key arrangement images are neither disclosed nor suggested by Thrower. To illustrate this difference, the Applicants provide elementarily shift-arranged numeric key arrangements in accordance with Claim 1 in the following Figs. 100:

[FIG. 100]



Figs. 100 show images of key arrangements in which the **numeric keys are elementarily shift-arranged** to the right and to the next row element by element so that there is no crossing in

an neighboring numeral traffic line. In addition, at least one of the images include at the top a non-numeric key -- which is represented by a blank key in Figs. 100 -- and the numeric keys 1 and 2. Such arrangements are illustrated, for example, in Applicants' Specification, at FIGs. 19a to 23b. In contrast, none of the scrolling key arrangements in Thrower's Figs. 2(a) to 2(d) -- on which the Examiner relied for his rejection -- includes an image having numeric keys 1 and 2 and a non-numeric key appearing at the top of the image. Therefore, Applicants respectfully submit that Claim 1 and its dependent Claims 4 and 7-8 are each allowable over Thrower. Claims 13-15, each reciting a similar limitation, also distinguish over Thrower. Accordingly, reconsideration and allowance of Claims 1, 4, 7-8 and 13-15 are therefore requested.

The Examiner rejected Claims 2 and 3 under 35 U.S.C. § 103(a) as being unpatentable over Thrower, in view of Japanese Patent Application Publication JP-2001-228970 ("Kitajima"), citing Kitajima for teaching an ambient light shielding filter. Applicants respectfully traverse the Examiner's rejection. As Claims 2-3 each depend from Claim 1, Claims 2-3 each distinguish over Thrower for failing to teach the recited key images, as already discussed above. Because Kitajima also fails to teach the recited key images, Kitajima does not cure Thrower's deficiency. Accordingly, Claims 2-3 are each allowable over the combined teachings of Thrower and Kitajima. Reconsideration and allowance of Claims 2-3 are therefore requested.

The Examiner rejected Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Thrower, in view of Japanese Patent Application Publication JP-2002-032176 ("Okada"), citing Okada for teaching a direction of shift in the matrix elements. Applicants respectfully traverse the Examiner's rejection. As Claim 5 depends from Claim 1, Claim 5 distinguishes over Thrower for failing to teach the recited key images, as already discussed above. Because Okada also fails to teach such recited key images, Okada does not cure Thrower's deficiency. Accordingly, Claim 5

is allowable over the combined teachings of Thrower and Okada. Reconsideration and allowance of Claim 5 are therefore requested.

The Examiner rejected Claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Thrower, in view of U.S. Patent 6,549,194 (“McIntyre”), citing McIntyre for teaching fixed non-numeric keys. Applicants respectfully traverse the Examiner’s rejection. As Claim 6 depends from Claim 1, Claim 6 distinguishes over Thrower for failing to teach the recited key images, as already discussed above. Because McIntyre also fails to teach the recited key images, McIntyre does not cure Thrower’s deficiency. Accordingly, Claim 6 is allowable over the combined teachings of Thrower and McIntyre. Reconsideration and allowance of Claim 6 are therefore requested.

The Examiner rejected Claims 9 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Thrower, in view of U.S. Patent 6,434,702 (“Maddalozzo”), citing Maddalozzo for teaching randomly arranged non-numeric keys. Applicants respectfully traverse the Examiner’s rejection. As Claims 9 and 12 each depend from Claim 1, Claims 9 and 12 each distinguish over Thrower for failing to teach the recited key images, as already discussed above. Because Maddalozza also fails to teach the recited key images, Maddalozza does not cure Thrower’s deficiency. Accordingly, Claims 9 and 12 are each allowable over the combined teachings of Thrower and Maddalozza. Reconsideration and allowance of Claims 9 and 12 are therefore requested.

The Examiner rejected Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Thrower, in view of Japanese Patent Application Publication JP-2002-368153 (“Sasaki”), citing Sasaki for teaching numeric keys that are arranged in a square rotary shift. Applicants respectfully traverse the Examiner’s rejection. As Claim 10 depends from Claim 1, Claim 10 distinguishes over Thrower for failing to teach the recited key images, as already discussed above.

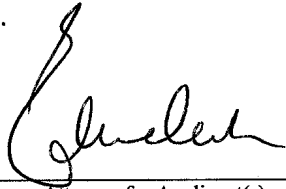
Because Sasaki also fails to teach the recited key images, Sasaki does not cure Thrower's deficiency. Accordingly, Claim 10 is allowable over the combined teachings of Thrower and Sasaki. Reconsideration and allowance of Claim 10 are therefore requested.

The Examiner rejected Claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Thrower, in view of U.S. Patent 6,925,169 ("Habu"), citing Habu for teaching fixing non-numeric keys at the center. Applicants respectfully traverse the Examiner's rejection. As Claim 11 depends from Claim 1, Claim 11 distinguishes over Thrower for failing to teach the recited key images, as already discussed above. Because Habu also fails to teach the recited key images, Habu does not cure Thrower's deficiency. Accordingly, Claim 11 is allowable over the combined teachings of Thrower and McIntyre. Reconsideration and allowance of Claim 11 are therefore requested.

Accordingly, all examined claims (i.e., Claims 1-15) are believed allowable.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 08-1394 for any matter in connection with this response, including any fee for extension of time and/or fee for additional claims, which may be required. Any questions regarding this case can be addressed to the undersigned at the telephone number below.

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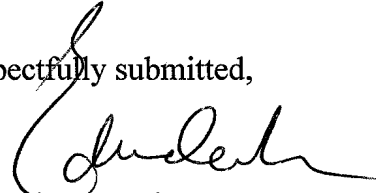


Attorney for Applicant(s)

2/23/2010

Date of Signature

Respectfully submitted,



Edward C. Kwok
Attorney for Applicant(s)
Reg. No. 33,938

Haynes and Boone, LLP
2033 Gateway Place, Suite 400
San Jose, CA 95110
Telephone: 408-660-4120
Facsimile : 214-200-0853